GenCore version 5.1.3

OM nucleic - nucleic search, using sw model

Run on: March 29, 2003, 19:47:07 ; Search time 727.101 Seconds
(without alignments)
7950.588 Million cell updates/sec

Title: US-09-988-971-1
Perfect score: 2567
Sequence: 1 cccacgcgtccggtcggagc.....aaaaaaaaaaaaaaaaaaa 2567

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 1125999159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_101002:*
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23: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
24: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	1181.4	46.0	1183	24	ABK61465	Human cDNA encodin
	2	857	33.4	2049	23	AAS74750	DNA encoding novel
	3	831.8	32.4	837	21	AAC77202	Human ORFX ORF2757
	4	786	30.6	786	24	AAL44089	Human modulator of
	5	671.8	26.2	705	22	AAK56376	Human immune/haema
	6	663.4	25.8	737	24	AAL44090	Mouse MARS short i
	7	576.4	22.5	1348	24	AAL44087	Mouse modulator of
	8	405	15.8	603	23	AAS74748	DNA encoding novel
c	9	395	15.4	445	23	AAS74747	DNA encoding novel
	10	254.6	9.9	273	22	AAK67918	Human immune/haema
	11	241.4	9.4	32188	22	AAS28365	Genomic sequence #
c	12	240.8	9.4	18949	22	AAK70445	Human immune/haema
	13	240.2	9.4	9365	21	AAZ50359	Human CD39-L4 geno
	14	240.2	9.4	9365	22	AAF63405	Human CD39 like pr
	15	240.2	9.4	14747	22	AAF63406	Human CD39 like pr
	16	240.2	9.4	15977	22	AAF63407	Human CD39 like pr
	17	238.6	9.3	4432	22	AAK86168	Human immune/haema
	18	237.8	9.3	16225	22	AAS30106	Human lung antigen
	19	237.8	9.3	16225	22	AAL06744	Human reproductive
	20	237.8	9.3	16225	22	AAK81913	Human immune/haema
	21	237.8	9.3	16225	22	AAI62650	Human breast or ov
c	22	237.6	9.3	16852	22	AAK72507	Human immune/haema
c	23	237.6	9.3	16852	22	AAK84641	Human immune/haema
c	24	237.2	9.2	1664	22	AAL36476	Human musculoskele
c	25	236	9.2	42519	22	AAK81318	Human immune/haema
c	26	236	9.2	121162	21	AAC66548	Human kinesin-like
	27	235.8	9.2	2728	22	AAH19869	Human SCAP 22 enco
	28	235.8	9.2	2902	22	AAI60461	Human polynucleoti
	29	235.8	9.2	3027	22	AAI58675	Human polynucleoti
c	30	235.4	9.2	39287	24	ABN80533	Human P450(cytochr
c	31	234.8	9.1	14093	23	ABK42857	Genomic sequence #
	32	234.2	9.1	24664	22	AAK91310	Human digestive sy
	33	234.2	9.1	24664	22	AAS32137	Human liver associ
	34	234.2	9.1	24664	24	ABN90492	Human liver antige
c	35	233.8	9.1	20020	22	AAS29216	Genomic sequence #
	36	233.8	9.1	20020	22	AAL05535	Human reproductive
c	37	233.6	9.1	1424	22	AAK80694	Human immune/haema
c	38	233.4	9.1	128600	24	ABK83461	Human cDNA differe
c	39	233.2	9.1	7960	22	AAS36827	Human cardiovascul
c	40	233.2	9.1	10503	22	ABA06768	Human genomic DNA
c	41	233.2	9.1	10503	22	AAS28598	Genomic sequence #
c	42	233.2	9.1	10503	22	AAI63970	Human polynucleoti
	43	233.2	9.1	10503	22	AAS31500	Human DNA for a no
c	44	233.2	9.1	10503	22	AAS35054	DNA #4 encoding hu
	45	233.2	9.1	10503	24	ABQ66824	Human polynucleoti

ALIGNMENTS

RESULT 1
ABK61465
ID ABK61465 standard; cDNA; 1183 BP.
XX
AC ABK61465;
XX
DT 18-JUN-2002 (first entry)
XX
DE Human cDNA encoding protein NOV13.
XX
KW Human; gene; ss; NOVX; gene therapy; cardiomyopathy; atherosclerosis;
KW cell signal processing disorder; metabolic pathway modulation disorder;
KW diabetes; cancer; adenocarcinoma; lymphoma; prostate cancer;
KW uterus cancer; immune response; graft-versus-host disease;
KW acquired immunodeficiency syndrome; AIDS; asthma; Crohn's disease;
KW hypertension; congenital heart defects; multiple sclerosis; inflammation;
KW Albright hereditary osteodystrophy.
XX
OS Homo sapiens.
XX
PN WO200216599-A2.
XX
PD 28-FEB-2002.
XX
PF 27-AUG-2001; 2001WO-US26510.
XX
PR 25-AUG-2000; 2000US-228191P.
PR 08-FEB-2001; 2001US-267300P.
PR 20-FEB-2001; 2001US-269961P.
PR 20-MAR-2001; 2001US-277337P.
XX
PA (CURA-) CURAGEN CORP.

PA (CORT-) COR THERAPEUTICS INC.
XX
PI Burgess CE, Conley PB, Grosse WM, Hart M, Kekuda R, Shimkets RA;
PI Spytek KA, Szekeres ES, Tomlinson JE, Topper JN, Yang R;
XX
DR WPI; 2002-280937/32.
DR P-PSDB; AAU91308.
XX
PT New polypeptides for treating or preventing a disorder associated with
PT them, in humans, e.g. cardiomyopathy, atherosclerosis or cancers -
XX
PS Claim 1; Page 98; 263pp; English.
XX
CC The invention relates to an isolated polypeptide (NOVX) a mature
CC form of NOVX, a NOVX variant (differing by no more than 15%), the
CC nucleotide encoding NOVX (or its complement, fragment or variant).
CC NOVX is NOV1-14, 15a, 15b, 16a, and 16b. The NOVX polypeptide, nucleic
CC acid encoding it and antibody against it, are useful for treating or
CC preventing (e.g. by gene therapy) a NOVX-associated disorder in humans,
CC e.g. cardiomyopathy, atherosclerosis, a disorder related to cell signal
CC processing and metabolic pathway modulation, diabetes or cancers. The
CC NOVX polypeptide and nucleic acids are also useful for determining the
CC presence of predisposition to the diseases. The NOVX nucleic acid and
CC polypeptide are especially useful in therapeutic or prophylactic
CC applications for disorders associated with aberrant NOVX expression or
CC activity, e.g. cancers (e.g. adenocarcinoma, lymphoma, prostate cancer or
CC uterus cancer), immune response, graft-versus-host disease, acquired
CC immunodeficiency syndrome (AIDS), asthma, Crohn's disease, hypertension,
CC congenital heart defects, multiple sclerosis, inflammation or Albright
CC hereditary osteodystrophy and many other diseases listed in the
CC specification. The DNA encoding the protein is useful in gene therapy
CC for treating the conditions. This is also useful in detection assays,
CC chromosome mapping, tissue typing, diagnostic or prognostic assays, or
CC for developing a powerful assay system for functional analysis of
CC various human disorders, as well as in diagnostic applications. The
CC present sequence encodes a NOVX protein.
XX
SQ Sequence 1183 BP; 251 A; 359 C; 333 G; 240 T; 0 other;

Query Match 46.0%; Score 1181.4; DB 24; Length 1183;
Best Local Similarity 99.9%; Pred. No. 1.1e-286;
Matches 1182; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy     18 AGCTAGAGCTCCAAGGACCCCACGCCTGTGTCTCTGTGACAGAGCTCAAAGGGCCCTGGG 77
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Db      1 AGCTAGAGCTCCAAGGACCCCACGCCTGTGTCTCTGTGACAGAGCTCAAAGGGCCCTGGG 60

Qy     78 CCTTCCCTCCCTGGCTCGGCTGTGCTTGGGAGGGTTCCCCAGTCCAGAATCCCTAAGGAG 137
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 CCTTCCCTCCCTGGCTCGGCTGTGCTTGGGAGGGTTCCCCAGTCCAGAATCCCTAAGGAG 120

Qy    138 CATGGGGCAGCTGATCCATCCCTGGTGTACAAACTGCTGACTGCAGACAGATGCTGAGCT 197
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 CATGGGGCAGCTGATCCATCCCTGGTGTACAAACTGCTGACTGCAGACAGATGCTGAGCT 180

Qy    198 ACCCAAACCAACACCTAGCCTCTCCCTGAAGATCCTCCCAGGCTGAGAGAGTTCTGGGTG 257
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 ACCCAAACCAACACCTAGCCTCTCCCTGAAGATCCTCCCAGGCTGAGAGAGTTCTGGGTG 240

Qy    258 TCCTAGGACCAAGGACACTGGCAGACTTCCAGAAGGGCCCCCAAAGCCCTAACCTGTCCA 317
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 TCCTAGGACCAAGGACACTGGCAGACTTCCAGAAGGGCCCCCAAAGCCCTAACCTGTCCA 300

Qy    318 GCCAGAGCATGCGTCTCAGCAGAGCTGTCTTCCCAAGCCTTTGATGACAAACCAATTTCC 377
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 GCCAGAGCATGCGTCTCAGCAGAGCTGTCTTCCCAAGCCTTTGATGACAAACCAATTTCC 360

Qy    378 CTCGATGATGTGCTTCTGAGTGCTCTGCTGAGGAACAATGGGAAGTCTGCCCAGCAGAAG 437
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Qy    438 AAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCAT 497
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Db    421 AAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCAT 480

Qy    498 GGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGGTGGCCC 557
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Db    481 GGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGGTGGCCC 540

Qy    558 GGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTG 617
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Db    541 GGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTG 600

Qy    618 GTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGC 677
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Db    601 GTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGG 660

Qy    678 CAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGAACTGCT 737
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Qy    738 GTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGG 797
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Db    721 GTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGG 780

Qy    798 CTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTA 857
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Db    781 CTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTA 840

Qy    858 CAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTC 917
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Db    841 CAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTC 900

Qy    918 ACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAA 977
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Qy    978 GGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGT 1037
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Db    961 GGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGT 1020

Qy   1038 GACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCTGA 1097
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Qy   1098 AGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGTCTCCGGGGAGTCCCTCAGCTTCTA 1157
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Qy   1158 CATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCCTAG 1200
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Db   1141 CATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCCTAG 1183
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RESULT 2
AAS74750
ID AAS74750 standard; cDNA; 2049 BP.
XX
AC AAS74750;
XX
DT 13-FEB-2002 (first entry)
XX
DE DNA encoding novel human diagnostic protein #10554.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.

PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR P-PSDB; ABG10563.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 1; SEQ ID No 10554; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 2049 BP; 479 A; 573 C; 551 G; 443 T; 3 other;

Query Match 33.4%; Score 857; DB 23; Length 2049;
Best Local Similarity 91.6%; Pred. No. 4.3e-205;
Matches 1027; Conservative 0; Mismatches 32; Indels 62; Gaps 9;

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Qy    372 ATTTCCCTCGATGATGTGCTTCTGAGTGCTCTGCTGAGGAACAATGGGAAGTCTGCCCAG 431
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Db    922 ATTTCCCTCGATGATGTGCTTCTGAGTGCTCTGCTGAGGAACAATGGGAAGTCTGCCCAG 981

Qy    432 CAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGT 491
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Db    982 CAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGT 1041

Qy    492 GACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGG 551
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Db   1042 GACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGG 1101

Qy    552 TGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGG 611
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Db   1102 TGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGG 1161

Qy    612 AGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCA 671
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Db   1162 AGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCA 1221

Qy    672 CGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGA 731
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Db   1222 CGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGA 1281

Qy    732 ACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAG 791
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Db   1282 ACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAG 1341

Qy    792 GAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAG 851
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Db   1342 GAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAACCGCCCTGCATTCTGGGACCGGATCAG 1401

Qy    852 ACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTT 911
          ||||||||||| ||||| ||||||||||||||||||||||||||||||||||||||||||||
Db   1402 ACACTACAGGATTCACTGGCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTT 1461

Qy    912 CCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCT 971
          ||||||||||||||||||||||||||||||||||
Db   1462 CCCCTCACTCCAGGCCCTGGTGGACCATTACTCT---------------------------- 1495

Qy    972 ACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCT 1031
                                  ||||||||||||||||||||||||||||||||||||
Db   1496 ----------------------GAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCT 1531

Qy   1032 ACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTT 1091
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1532 ACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTT 1591

Qy   1092 TTCTGAAGCTGCCACA-GGGGAGGAGTCTCTTCTCAG-TGAGGGTCTCCGGGAGT-CCCT 1148
          |||||||||||||||| |||||||||||||||||||  ||||| |||||||||| ||||
Db   1592 TTCTGAAGCTGCCACAGGGGGAGGAGTCTCTTCTCAGAGGAGGGGCTCCGGGAGTCCCCT 1651

Qy   1149 CAGCTTCTACATCAG-CCTGAATGACGAGGCTGTCTC-TTTGGATGATGCCTAGG---CC 1203
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Qy   1204 CAAAGGAGAGGCCAAAAGGGAAA---CCAAGGCTGCACACCTAGAACCCCAATTCAGCCT 1260
          ||| |||||||||||||| ||    |   |    ||    | ||||||||||||||||||
Db   1712 CAAGGGAGAGGCCAAAAGGGGAAACCCACGGTTGGCCACCTTAGAACCCCAATTCAGCCT 1771

Qy   1261 CCTGGGCACCCCAGAGGCAAGGCTGTGCACTCAGGGAGGGAGGGTGGGACACAGAGGTGC 1320
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Qy   1321 ATCTAGGGTCCCACCTGTACCCTTGCTCTTTCCTCTCTTAGCCCTTAGAAGTCACCTACT 1380
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Qy   1381 TCCTTCCAGTGCCATGATCCCACCTGCGACCTCTAGTGCGAGTGCAGAGAAGGTGGGACC 1440
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Db   1892 TTCCTTCAGGGCCATGATCCCACCTGCGACCTCTAATGCGAGTGCANAGAAGGGGGGACC 1951

Qy   1441 AGGGCCAGGGTT-CCAAAAAGAGAATAAGCCTCCTGGGGGG 1480
          |||||||||||| |||||||||||||||| |  |||||
Db   1952 AGGGCCAGGGTTCCCAAAAAGAGAATAAGCCTTCCTGGGGG 1992
```

RESULT 3
AAC77202
ID AAC77202 standard; cDNA; 837 BP.
XX
AC AAC77202;
XX
DT 08-FEB-2001 (first entry)
XX
DE Human ORFX ORF2757 polynucleotide sequence SEQ ID NO:5513.
XX
KW Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW cholesterol ester storage; systemic lupus erythematosus; infection;
KW severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW thrombosis; contraceptive; ss.
XX

OS Homo sapiens.
XX
PN WO200058473-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08621.
XX
PR 31-MAR-1999; 99US-0127607.
PR 02-APR-1999; 99US-0127636.
PR 05-APR-1999; 99US-0127728.
PR 30-MAR-2000; 2000US-0540763.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Shimkets RA, Leach M;
XX
DR WPI; 2000-602362/57.
DR P-PSDB; AAB42993.
XX
PT Novel nucleic acids and peptides derived from open reading frame X,
PT useful for treating e.g. cancers, proliferative disorders,
PT neurodegenerative disorders and cardiovascular disease -
XX
PS Claim 5; Page 4692-4693; 5507pp; English.
XX
CC AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC antidiabetic; hypotensive; dermatological; immunosuppressive;
CC antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC antithyroid; and antianaemic. The sequences can be used for determining
CC the presence of or predisposition to, or preventing or treating
CC pathological conditions associated with an ORFX-associated disorder. The
CC nucleic acids can be used to express ORFX proteins in gene therapy
CC vectors. The proteins and nucleic acids may be used to treat cancers,
CC proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC graft vs host disease, cardiovascular disease, diabetes mellitus,
CC hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ Sequence 837 BP; 176 A; 254 C; 245 G; 160 T; 2 other;

Query Match 32.4%; Score 831.8; DB 21; Length 837;
Best Local Similarity 99.8%; Pred. No. 6.5e-199;
Matches 833; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy    456 AAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAA 515
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      3 AAGCTTGAGTTCCTCTGTCCAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAA 62

Qy    516 GGCCACAGCCGTGGCCCTGGGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAG 575
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     63 GGCCACAGCCGCGGCCCTGGGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAG 122

Qy    576 ACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGA 635
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    123 ACTCGGGGAGCCATTGACCATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGA 182

Qy    636 AGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTG 695
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    183 AGTCTCAGGCAGAGAGTATAACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTG 242

Qy    696 GCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCC 755
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    243 GCTGTATGAGGGCCTGAGCAGGGAGAAAGCAGAGGACCTGCTGTTGTTACCTGGGAACCC 302
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Qy    756 TGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGT 815
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    303 TGGAGGGGCCTTCCTCATCCGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGT 362

Qy    816 CCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGA 875
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    363 CCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGA 422

Qy    876 CAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGA 935
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    423 CAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGA 482

Qy    936 CCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCA 995
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    483 CCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCA 542

Qy    996 GAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACC 1055
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    543 GAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACC 602

Qy   1056 ACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGA 1115
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    603 ACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGA 662

Qy   1116 GTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGA 1175
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    663 GTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGA 722

Qy   1176 GGCTGTCTCTTTGGATGATGCCTAGGCCCAAAGGAGAGGCCAAAAGGGAAACCAAGGCTG 1235
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    723 GGCTGTCTCTTTGGATGATGCCTAGGCCCAAAGGAGAGGCCAAAAGGGAAACCAAGGCTG 782

Qy   1236 CACACCTAGAACCCCAATTCAGCCTCCTGGGCACCCCAGAGGCAAGGCTGTGCAC 1290
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    783 CACACCTAGAACCCCAATTCAGCCTCCTGGGCACCCCAGAGGCAAGGCTGTGCAC 837
```

RESULT 4
AAL44089
ID AAL44089 standard; cDNA; 786 BP.
XX
AC AAL44089;
XX
DT 03-OCT-2002 (first entry)
XX
DE Human modulator of antigen receptor signalling protein coding sequence.
XX
KW Human; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..786
FT /*tag= a
FT /product= "Human MARS protein"
XX
PN WO200242452-A2.
XX
PD 30-MAY-2002.
XX
PF 26-NOV-2001; 2001WO-CA01662.
XX
PR 27-NOV-2000; 2000CA-2324663.
XX
PA (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX
PI Mcglade JC, Loreto MP;
XX
DR WPI; 2002-566564/60.

```
DR   P-PSDB; AAO15457.
XX
PT   New isolated modulator of antigen receptor signaling protein or its
PT   fragment, useful for treating malignant disorders such as myeloid
PT   malignancies, autoimmune disorders and myeloproliferative disorders -
XX
PS   Claim 12; Page 75; 110pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of modulator
CC   of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC   putative tumour suppressor gene and exhibits structural and sequence
CC   similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC   protein sequences of the invention are useful for the treatment of
CC   myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC   disorders, immunosuppression, myeloproliferative disorders and
CC   malignancies related to the de-regulation of tyrosine kinases (e.g.
CC   breast cancer). The present cDNA sequence encodes a human MARS protein.
XX
SQ   Sequence 786 BP; 162 A; 234 C; 231 G; 159 T; 0 other;

  Query Match           30.6%;  Score 786;  DB 24;  Length 786;
  Best Local Similarity  100.0%;  Pred. No. 2e-187;
  Matches  786;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     415 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 474
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60

Qy     475 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 534
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120

Qy     535 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 594
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180

Qy     595 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 654
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240

Qy     655 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 714
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300

Qy     715 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 774
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360

Qy     775 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 834
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420

Qy     835 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 894
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480

Qy     895 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 954
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 540

Qy     955 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 1014
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     541 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 600

Qy    1015 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 1074
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     601 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 660

Qy    1075 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 1134
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     661 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 720

Qy    1135 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 1194
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     721 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGAT 780

Qy    1195 GCCTAG 1200
           ||||||
Db     781 GCCTAG 786


RESULT 5
AAK56376
ID   AAK56376 standard; cDNA; 705 BP.
XX
AC   AAK56376;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human immune/haematopoietic antigen encoding cDNA SEQ ID NO:1436.
XX
KW   Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW   cytostatic; gene therapy; vaccine; metastasis; ss.
XX
OS   Homo sapiens.
XX
PN   WO200157182-A2.
XX
PD   09-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01354.
XX
PR   31-JAN-2000; 2000US-0179065.
PR   04-FEB-2000; 2000US-0180628.
PR   24-FEB-2000; 2000US-0184664.
PR   02-MAR-2000; 2000US-0186350.
PR   16-MAR-2000; 2000US-0189874.
PR   17-MAR-2000; 2000US-0190076.
PR   18-APR-2000; 2000US-0198123.
PR   19-MAY-2000; 2000US-0205515.
PR   07-JUN-2000; 2000US-0209467.
PR   28-JUN-2000; 2000US-0214886.
PR   30-JUN-2000; 2000US-0215135.
PR   07-JUL-2000; 2000US-0216647.
PR   07-JUL-2000; 2000US-0216880.
PR   11-JUL-2000; 2000US-0217487.
PR   11-JUL-2000; 2000US-0217496.
PR   14-JUL-2000; 2000US-0218290.
PR   26-JUL-2000; 2000US-0220963.
PR   26-JUL-2000; 2000US-0220964.
PR   14-AUG-2000; 2000US-0224518.
PR   14-AUG-2000; 2000US-0224519.
PR   14-AUG-2000; 2000US-0225213.
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PR   14-AUG-2000; 2000US-0225266.
PR   14-AUG-2000; 2000US-0225267.
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PR   14-AUG-2000; 2000US-0225270.
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PR   14-AUG-2000; 2000US-0225757.
PR   14-AUG-2000; 2000US-0225758.
PR   14-AUG-2000; 2000US-0225759.
PR   18-AUG-2000; 2000US-0226279.
PR   22-AUG-2000; 2000US-0226681.
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PR   01-SEP-2000; 2000US-0229287.
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PR   01-SEP-2000; 2000US-0229345.
PR   05-SEP-2000; 2000US-0229509.
PR   05-SEP-2000; 2000US-0229513.
PR   06-SEP-2000; 2000US-0230437.
PR   06-SEP-2000; 2000US-0230438.
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PR 08-SEP-2000; 2000US-0231242.
PR 08-SEP-2000; 2000US-0231243.
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PR 08-SEP-2000; 2000US-0231413.
PR 08-SEP-2000; 2000US-0231414.
PR 08-SEP-2000; 2000US-0232080.
PR 08-SEP-2000; 2000US-0232081.
PR 12-SEP-2000; 2000US-0231968.
PR 14-SEP-2000; 2000US-0232397.
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PR 14-SEP-2000; 2000US-0232400.
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PR 14-SEP-2000; 2000US-0233063.
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PR 14-SEP-2000; 2000US-0233065.
PR 21-SEP-2000; 2000US-0234223.
PR 21-SEP-2000; 2000US-0234274.
PR 25-SEP-2000; 2000US-0234997.
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PR 02-OCT-2000; 2000US-0236802.
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PR 20-OCT-2000; 2000US-0241787.
PR 20-OCT-2000; 2000US-0241808.
PR 20-OCT-2000; 2000US-0241809.
PR 20-OCT-2000; 2000US-0241826.
PR 01-NOV-2000; 2000US-0244617.
PR 08-NOV-2000; 2000US-0246474.
PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
PR 08-NOV-2000; 2000US-0246477.
PR 08-NOV-2000; 2000US-0246478.
PR 08-NOV-2000; 2000US-0246523.
PR 08-NOV-2000; 2000US-0246524.
PR 08-NOV-2000; 2000US-0246525.
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PR 17-NOV-2000; 2000US-0249209.
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PR 17-NOV-2000; 2000US-0249211.
PR 17-NOV-2000; 2000US-0249212.
PR 17-NOV-2000; 2000US-0249213.
PR 17-NOV-2000; 2000US-0249214.
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PR 17-NOV-2000; 2000US-0249244.
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PR 17-NOV-2000; 2000US-0249264.
PR 17-NOV-2000; 2000US-0249265.
PR 17-NOV-2000; 2000US-0249297.
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PR 01-DEC-2000; 2000US-0250160.
PR 01-DEC-2000; 2000US-0250391.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
DR P-PSOB; AAM83595.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and
PT metastasis -
XX
PS Claim 1; SEQ ID NO 1436; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting
CC the nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention.
XX
SQ Sequence 705 BP; 185 A; 191 C; 161 G; 165 T; 3 other;

Query Match 26.2%; Score 671.8; DB 22; Length 705;
Best Local Similarity 98.9%; Pred. No. 9.5e-159;
Matches 695; Conservative 2; Mismatches 4; Indels 2; Gaps 2;

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Qy   1860 TGCCCTGTTGCCCATGCTGGAGTGCAATGG-CACGATC-TCAGCTCACTGCAACCTCCAT 1917
          ||||||||||||||||||||||||||||| ||||||| ||||||||||||||||||||
Db      3 TGCCCTGTTGCCCATGCTGGAGTGCAATGGNCACGATCTTCAGCTCACTGCAACCTCCAT 62

Qy   1918 CTCCTGGATTCAAACAATTCTCCTGCCTCAGCCTCCAGAATAGCTGGGATTACAGGCGTA 1977
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     63 CTCCTGGATTCAAACAATTCTCCTGCCTCAGCCTCCAGAATAGCTGGGATTACAGGCGTA 122

Qy   1978 CACCACCATGCCTGGCTAATTTTTTTGTATTTTTAGTAGACATGGGGTTTCACCACATTG 2037
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    123 CACCACCATGCCTGGCTAATTTTTTTGTATTTTTAGTAGACATGGGGTTTCACCACATTG 182

Qy   2038 GCCAGGCTGGTGTCGAACTCCTGACCTCAGGTGATCCACCCACCTTGGCCTCCCAAAGTG 2097
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    183 GCCAGGCTGGTGTCGAACTCCTGACCTCAGGTGATCCACCCACCTTGGCCTCCCAAAGTG 242
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Qy   2098 CTGGGATTACAGGTGTGAGCCACGGCACCCAGCCTAGCTCTCAGATCTCTATTTCATTTT 2157
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    243 CTGGGATTACAGGTGTGAGCCACGGCACCCAGCCTAGCTCTCAGATCTCTATTTCATTTT 302

Qy   2158 GTGGCTTACCATTCCCTAGCACACTGGCCTTGCCATCTTGTGGCCGAATAAAAAATAACA 2217
          ||||||||||:||||||||||||||||||||||||||||||||||||||||||||||||
Db    303 GTGGCTTACCAWTCCCTAGCACACTGGCCTTGCCATCTTGTGGCCGAATAAAAAATAACA 362

Qy   2218 CCTCTTAAGTCTAGCACACTGCAGTGAGGCCAGGCACCTCAGTGCTGGGCAGGGGCATCA 2277
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    363 CCTCTTAAGTCTAGCACACTGCAGTGAGGCCAGGCACCTCAGTGCTGGGCAGGGGCATCA 422

Qy   2278 GAAGGTGCTAAGCCCTCTCTCCACAATGCCAAGACGGAGACCACAGCCTACACCAAATCC 2337
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    423 GAAGGTGCTAAGCCCTCTCTCCACAATGCCAAGACGGAGACCACAGCCTACACCAAATCC 482

Qy   2338 AGCCCTTGATTTCCCTGCTGCCTCCATAAACAGAAAGAGGTCTGCTGGATCCGCTAAGGG 2397
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    483 AGCCCTTGATTTCCCTGCTGCCTCCATAAACAGAAAGAGGTCTGCTGGATCCGCTAAGGG 542

Qy   2398 ATCAGGGAGAGGAAGAAAGAGGGATGGGGTGGGAGGCACCCCCTCCAGTGCTCCTACTGG 2457
          ||||||||||||||||||||||||||:||||||||||||||||||||||||||||||||
Db    543 ATCAGGGAGAGGAAGAAAGAGGGATRGGGTGGGAGGCACCCCCTCCAGTGCTCCTACTGG 602

Qy   2458 TTCCCAAGCTACAGGTGGGGTGGGAAAGGCTTTATCAGGTATCATCAACAGGTTCTCAAT 2517
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    603 TTCCCAAGCTACAGGTGGGGTGGGAAAGGCTTTATCAGGTATCATCAACAGGTTCTCAAT 662

Qy   2518 TAAAGATTTGATTTATTCAAGTATGTGAAAAAAAAAAAAAAAA 2560
          ||||||||||||||||||||||    ||||||||||||||||
Db    663 TAAAGATTTGATTTATTCAAGTAAAAAAAAAAAAAAAAAAAAA 705
```

RESULT 6
AAL44090
ID AAL44090 standard; cDNA; 737 BP.
XX
AC AAL44090;
XX
DT 03-OCT-2002 (first entry)
XX
DE Mouse MARS short isoform protein coding sequence.
XX
KW Mouse; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS Mus sp.
XX
FH Key Location/Qualifiers
FT CDS 1..633
FT /*tag= a
FT /product= "Mouse MARS short isoform protein"
XX
PN WO200242452-A2.
XX
PD 30-MAY-2002.
XX
PF 26-NOV-2001; 2001WO-CA01662.
XX
PR 27-NOV-2000; 2000CA-2324663.
XX
PA (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX
PI Mcglade JC, Loreto MP;
XX
DR WPI; 2002-566564/60.
DR P-PSDB; AAO15458.
XX
PT New isolated modulator of antigen receptor signaling protein or its
PT fragment, useful for treating malignant disorders such as myeloid
PT malignancies, autoimmune disorders and myeloproliferative disorders -
XX
PS Claim 9; Page 77; 110pp; English.
XX
CC The invention comprises the amino acid and coding sequences of modulator
CC of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC putative tumour suppressor gene and exhibits structural and sequence
CC similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC protein sequences of the invention are useful for the treatment of
CC myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC disorders, immunosuppression, myeloproliferative disorders and
CC malignancies related to the de-regulation of tyrosine kinases (e.g.
CC breast cancer). The present cDNA sequence encodes a mouse MARS protein.
XX
SQ Sequence 737 BP; 152 A; 219 C; 218 G; 148 T; 0 other;

Query Match 25.8%; Score 663.4; DB 24; Length 737;
Best Local Similarity 93.4%; Pred. No. 1.2e-156;
Matches 735; Conservative 0; Mismatches 1; Indels 51; Gaps 2;

```
Qy    415 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 474
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 ATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTC 60

Qy    475 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 534
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 CAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGCCCTG 120

Qy    535 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 594
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 GGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATTGACC 180

Qy    595 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 654
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 ATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGAGTAT 240

Qy    655 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 714
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 AACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCTGAGC 300

Qy    715 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 774
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 AGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCTCATC 360

Qy    775 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 834
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 CGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCA 420

Qy    835 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 894
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    421 TCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATC 480

Qy    895 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCG 954
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 TCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCT--------- 531

Qy    955 GATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCT 1014
                                                  ||||||||||||||||||
Db    532 -----------------------------------------GAGGGCTGGCCCGCTCCCT 550

Qy   1015 GGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTG 1074
          ||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db    551 GGCAAGGATATACCCCTACCTGTGACTGTGCGGAGGACACCACTCAACTGGAAAGAGCTG 610

Qy   1075 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 1134
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    611 GACAGCTCCCTCCTGTTTTCTGAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGT 670

Qy   1135 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGA-CGAGGCTGTCTCTTTGGATGA 1193
          ||||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db    671 CTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGAGCGAGGCTGTCTCTTTGGATGA 730

Qy   1194 TGCCTAG 1200
          |||||||
```

```
Db    731 TGCCTAG 737


RESULT 7
AAL44087
ID   AAL44087 standard; cDNA; 1348 BP.
XX
AC   AAL44087;
XX
DT   03-OCT-2002  (first entry)
XX
DE   Mouse modulator of antigen receptor signalling protein coding sequence.
XX
KW   Mouse; gene; ss; gene therapy; modulator of antigen receptor signalling;
KW   MARS; tumour suppressor gene; Scr-like adaptor protein; SLAP;
KW   myeloid malignancy; acute myelogenous leukaemia; autoimmune disorder;
KW   immunosuppression; myeloproliferative disorder; breast cancer.
XX
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   CDS             282..1061
FT                   /*tag= a
FT                   /product= "Mouse MARS protein"
XX
PN   WO200242452-A2.
XX
PD   30-MAY-2002.
XX
PF   26-NOV-2001; 2001WO-CA01662.
XX
PR   27-NOV-2000; 2000CA-2324663.
XX
PA   (HOSP-) HOSPITAL FOR SICK CHILDREN.
XX
PI   Mcglade JC,  Loreto MP;
XX
DR   WPI; 2002-566564/60.
DR   P-PSDB; AAO15456.
XX
PT   New isolated modulator of antigen receptor signaling protein or its
PT   fragment, useful for treating malignant disorders such as myeloid
PT   malignancies, autoimmune disorders and myeloproliferative disorders  -
XX
PS   Claim 10; Fig 1A; 110pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of modulator
CC   of antigen receptor signalling (MARS) proteins. The MARS protein is a
CC   putative tumour suppressor gene and exhibits structural and sequence
CC   similarity to the Scr-like adaptor protein (SLAP). The MARS DNA and
CC   protein sequences of the invention are useful for the treatment of
CC   myeloid malignancies (e.g. acute myelogenous leukaemia) autoimmune
CC   disorders, immunosuppression, myeloproliferative disorders and
CC   malignancies related to the de-regulation of tyrosine kinases (e.g.
CC   breast cancer). The present cDNA sequence encodes a mouse MARS protein.
XX
SQ   Sequence 1348 BP; 324 A; 385 C; 362 G; 277 T; 0 other;

  Query Match           22.5%;  Score 576.4;  DB 24;  Length 1348;
  Best Local Similarity  75.8%;  Pred. No. 1.1e-134;
  Matches  784;  Conservative    0;  Mismatches  231;  Indels   19;  Gaps    5;

Qy     291 AGGGCCCCCAAAGCCCTAACCTGTCCAGCCAGAGCATGCGTCTCAGCAGAGCTGTCTTCC 350
           ||| ||  ||||| ||| |||||||  | ||| |  |||   |  || ||     ||
Db     160 AGGACCTGCAAAGGCCTGACCTGTCGGGTCAGTG--TGCACATTGGCTGACTACCCTCAT 217

Qy     351 CAAGCCTTTGATGACAAACCAATTTCCCTCGATGATGTGCTTCTGAGTGCTCTGCTGAGG 410
           ||| | | ||||| ||||||  |  |  || | | |  |  |    |||  |  |||  |
Db     218 CAAACGTCTGATGGCAAACCTTTCCCTTTCCAGGTTCAGTGTGCTTGTGAGCGTCTGCTG 277

Qy     411 AACAATGGGAAGTCTGCCCAGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTC 470
           |   |||||||||  || ||||||||  | |||  |    | |||||  |||   || |||||
Db     278 AGTGATGGGAAGTTTGTCCAGCAGAGGGAAAACCT---CCAGCCCCAGCCCCAGCTCCTC 334


Qy     471 TGTCCAAGGCCAGGGACCTGTGACCATGGAAGCAGAGAGAAGCAAGGCCACAGCCGTGGC 530
           ||  | ||  ||||| |||  |||  |||||  ||  ||||  |||   |||||  ||||| |||||
Db     335 TGGTCCAGACCAGGAACCCGTGTCCATGCAACCAGAAAGACACAAGGTCACAGCTGTGGC 394

Qy     531 CCTGGGCAGTTTCCCGGCAGGTGGCCCGGCCGAGCTGTCGCTGAGACTCGGGGAGCCATT 590
           ||||||||||||||| |||||||  | ||||    || ||  |||||||||||||||||| |
Db     395 CCTGGGCAGTTTCCCAGCAGGTGAACAGGCCAGACTATCTCTGAGACTCGGGGAGCCGCT 454

Qy     591 GACCATCGTCTCTGAGGATGGAGACTGGTGGACGGTGCTGTCTGAAGTCTCAGGCAGAGA 650
           |||||||  |||||||||||||||||  |||||||  ||  | |||  |||||||||||||||||
Db     455 GACCATCATCTCTGAGGATGGAGATTGGTGGACAGTCCAGTCGGAAGTCTCAGGCAGAGA 514

Qy     651 GTATAACATCCCCAGCGTCCACGTGGCCAAAGTCTCCCATGGGTGGCTGTATGAGGGCCT 710
           |||  ||||  |||||  ||  | |||||  ||||||  ||||  ||||||||||  ||||||||
Db     515 GTACCACATGCCCAGTGTGTATGTGGCTAAAGTCGCCCACGGGTGGCTGTACGAGGGCCT 574

Qy     711 GAGCAGGGAGAAAGCAGAGGAACTGCTGTTGTTACCTGGGAACCCTGGAGGGGCCTTCCT 770
           ||||  |||||||||  ||||||||  ||  |||||||||||||||  ||||||||||||||
Db     575 GAGCCGGGAGAAAGCCGAGGAACTACTCCTGTTACCTGGGAACCCCGGAGGGGCCTTCCT 634

Qy     771 CATCCGGGAGAGCCAGACCAGGAGAGGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCC 830
           ||||||||||||||||||||||||||||||  ||  ||  |||||  |||||  ||||||||||
Db     635 CATCCGGGAGAGCCAGACCAGGAGAGGCTGCTATTCCCTGTCCGTCCGACTCAGCCGCCC 694

Qy     831 TGCATCCTGGGACCGGATCAGACACTACAGGATCCACTGCCTTGACAATGGCTGGCTGTA 890
           ||||||  ||||||||||||||||||||||||||||||  ||  | ||||||||||||||||||||
Db     695 TGCATCTTGGGACCGGATCAGACACTACAGGATACAGCGTCTTGACAATGGCTGGCTGTA 754

Qy     891 CATCTCACCGCGCCTCACCTTCCCCTCACTCCAGGCCCTGGTGGACCATTACTCTGAGCT 950
           |||||||||  ||||||||||||||||||||  |||  |||||||  ||||||||||||||
Db     755 CATCTCACCTCGCCTCACCTTCCCCTCACTCCACGCCTTGGTGGAGCATTACTCTGAGCT 814

Qy     951 GGCGGATGACATCTGCTGCCTACTCAAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCT 1010
           ||  ||||  |||||||||  |  ||||  ||||||  ||||||||||||  |  |||  ||  ||
Db     815 AGCAGATGGCATCTGCTGTCCCCTCAGGGAGCCGTGTGTCCTGCAGAAGCTTGGGCCACT 874

Qy     1011 CCCTGGCAAGGATATACCCCTACCTGTGACTGTGCAGAGGACACCACTCAACTGGAAAGA 1070
            ||||||||  ||||  |||  |  ||||||||||||||  |    ||  ||||  ||  ||||||  |
Db     875 ACCTGGCAAAGATACACCTCCACCTGTGACTGTGCCAACATCATCACTAAATTGGAAAAA 934

Qy     1071 GCTGGACAGCTCCCTCCTGTTTTCTGAAG---CTGCCACAGGGGAGGAGTCTCTTCTCAG 1127
            |||||||  ||  ||||||||||  ||||  ||||  |  |||||||  |||||  |||||
Db     935 GCTGGACCGCAGCCTCCTGTTTCTGGAAGCACCTGCGAGTGGGGAGGCATCTCTGCTCAG 994

Qy     1128 TGAGGGTCTCCGGGAGTCCCTCAGCTTCTACATCAGCCTGAATGACGAGGCTGTCTCTTT 1187
            ||||||  |||||  ||||||||||  |  ||||||||||||  ||| ||       | | ||
Db     995 TGAGGGGCTCCGAGAGTCCCTCAGTTCCTACATCAGCCTGGCTGAGGA------CCCCTT 1048

Qy     1188 GGATGATGCCTAGGCCCAAAGGAGAGGCCAAAAGGGAAACCAAGGCTGCACACCTAGAAC 1247
            |||||||||  |||  ||  |  |  |  ||||||||  |  |          ||||  |||  |
Db     1049 GGATGATGCTTAGCCCTGGAACACAAAGAGAAAGGGAACCAAGACTGTGGCACCGAGAGC 1108

Qy     1248 CCCAATTC-----AGCCTCCTGGGCACCCCAGAGGCAAGGCTGTGCACTCAGGGAGGGAG 1302
            ||||  ||      |  |||          ||  ||||||||||||  |     |||  ||  ||
Db     1109 TCCAACTCCGCTGACCCTGACAAAGCTCCAGGAGGCAAGGCTGGGAGAACAGAGACGGCT 1168

Qy     1303 GGTGGGACACAGAG 1316
            ||  |  |   || ||
Db     1169 GGGGTGGGGCACAG 1182


RESULT 8
AAS74748
ID   AAS74748 standard; cDNA; 603 BP.
XX
AC   AAS74748;
XX
DT   13-FEB-2002  (first entry)
XX
DE   DNA encoding novel human diagnostic protein #10552.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
```

KW food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR P-PSDB; ABG10561.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 1; SEQ ID No 10552; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 603 BP; 124 A; 189 C; 164 G; 126 T; 0 other;

Query Match 15.8%; Score 405; DB 23; Length 603;
Best Local Similarity 100.0%; Pred. No. 9.6e-92;
Matches 405; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy    796 GGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACAC 855
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    199 GGCTCTTACTCTCTGTCAGTCCGCCTCAGCCGCCCTGCATCCTGGGACCGGATCAGACAC 258

Qy    856 TACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCC 915
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    259 TACAGGATCCACTGCCTTGACAATGGCTGGCTGTACATCTCACCGCGCCTCACCTTCCCC 318

Qy    916 TCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTC 975
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    319 TCACTCCAGGCCCTGGTGGACCATTACTCTGAGCTGGCGGATGACATCTGCTGCCTACTC 378

Qy    976 AAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCT 1035
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    379 AAGGAGCCCTGTGTCCTGCAGAGGGCTGGCCCGCTCCCTGGCAAGGATATACCCCTACCT 438

Qy   1036 GTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCT 1095
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    439 GTGACTGTGCAGAGGACACCACTCAACTGGAAAGAGCTGGACAGCTCCCTCCTGTTTTCT 498

Qy   1096 GAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTC 1155
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    499 GAAGCTGCCACAGGGGAGGAGTCTCTTCTCAGTGAGGGTCTCCGGGAGTCCCTCAGCTTC 558

Qy   1156 TACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCCTAG 1200
          ||||||||||||||||||||||||||||||||||||||||||||
Db    559 TACATCAGCCTGAATGACGAGGCTGTCTCTTTGGATGATGCCTAG 603
```

RESULT 9
AAS74747/c
ID AAS74747 standard; cDNA; 445 BP.
XX
AC AAS74747;
XX
DT 13-FEB-2002 (first entry)
XX
DE DNA encoding novel human diagnostic protein #10551.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder; ss.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR P-PSDB; ABG10560.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 1; SEQ ID No 10551; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. AAS64197-AAS94564 represent novel human
CC diagnostic coding sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 445 BP; 89 A; 112 C; 143 G; 101 T; 0 other;

```
  Query Match             15.4%;  Score 395;  DB 23;  Length 445;
  Best Local Similarity   98.6%;  Pred. No. 2.7e-89;
  Matches  409;  Conservative    0;  Mismatches    5;  Indels    1;  Gaps    1;

Qy      71 CCCTGGGCCTTCCCTCCCTGGCTCGGCTGTGCTTGGGAGGGTTCCCCAGTCCAGAATCCC 130
           | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     416 CGCTGGGCCTTCCCTCCCTGGCTCGGCTGTGCTTGGGAGGGTTCCCCAGTCCAGAATCCC 357

Qy     131 TAAGGAGCATGGGGCAGCTGATCCATCCCTGGTGTACAAACTGCTGACTGCAGACAGATG 190
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     356 TAAGGAGCATGGGGCAGCTGATCCATCCCTGGTGTACAAACTGCTGACTGCAGACAGATG 297

Qy     191 CTGAGCTACCCAAACCAACACCTAGCCTCTCCCTGAAGATCCTCCCAGGCTGAGAGAGT- 249
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
Db     296 CTGAGCTACCCAAACCAACACCTAGCCTCTCCCTGAAGATCCTCCCAGGCTGAGAGAGTA 237

Qy     250 TCTGGGTGTCCTAGGACCAAGGACACTGGCAGACTTCCAGAAGGGCCCCCAAAGCCCTAA 309
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     236 TCTGGGTGTCCTAGGACCAAGGACACTGGCAGACTTCCAGAAGGGCCCCCAAAGCCCTAA 177

Qy     310 CCTGTCCAGCCAGAGCATGCGTCTCAGCAGAGCTGTCTTCCCAAGCCTTTGATGACAAAC 369
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     176 CCTGTCCAGCCAGAGCATGCGTCTCAGCAGAGCTGTCTTCCCAAGCCTTTGATGACAAAC 117

Qy     370 CAATTTCCCTCGATGATGTGCTTCTGAGTGCTCTGCTGAGGAACAATGGGAAGTCTGCCC 429
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     116 CAATTTCCCTCGATGATGTGCTTCTGAGTGCTCTGCTGAGGAACAATGGGAAGTCTGCCC 57

Qy     430 AGCAGAAGAAAATCTCTGCCAAGCCCAAGCTTGAGTTCCTCTGTCCAAGGCCAGG 484
           ||||||| |||||||||||| |||||||||||||||||||||||||||| | |||
Db      56 AGCAGAAAAAAATCTCTGCCCAGCCCAAGCTTGAGTTCCTCTGTCCAAGCCAAGG 2
```

RESULT 10
AAK67918
ID AAK67918 standard; DNA; 273 BP.
XX
AC AAK67918;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:22730.
XX
KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW cytostatic; gene therapy; vaccine; metastasis; ds.
XX
OS Homo sapiens.
XX
PN WO200157182-A2.
XX
PD 09-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US01354.
XX
PR 31-JAN-2000; 2000US-0179065.
PR 04-FEB-2000; 2000US-0180628.
PR 24-FEB-2000; 2000US-0184664.
PR 02-MAR-2000; 2000US-0186350.
PR 16-MAR-2000; 2000US-0189874.
PR 17-MAR-2000; 2000US-0190076.
PR 18-APR-2000; 2000US-0198123.
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PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and
PT metastasis -
XX
PS Disclosure; SEQ ID NO 22730; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting
CC the nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention.
XX
SQ Sequence 273 BP; 76 A; 68 C; 71 G; 58 T; 0 other;

Query Match 9.9%; Score 254.6; DB 22; Length 273;
Best Local Similarity 98.2%; Pred. No. 4.2e-54;
Matches 268; Conservative 0; Mismatches 4; Indels 1; Gaps 1;

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Db      1 AGAAGGTGCTAAGCCCTCTCTCCCCAATGCCAAGACGTAGACCACAGCCCCACGCCAAAT 60

Qy   2336 CCAGCCCTTGATTTCCCTGCTGCCTCCATAAACAGAAAGAGGTCTGCTGGATCCGCTAAG 2395
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Db     61 CCAGCCCTTGATTTCCCTGCTGCCTCCATAAACAGAAAGAGGTCTGCTGGATCCGCTAAG 120

Qy   2396 GGATCAGGGAGAGGAAGAAAGAGGGATGGGGTGGGAGGCACCCCCTCCAGTGCTCCTACT 2455
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Qy   2516 ATTAAAGATTTGATTTATTCAAGTATGTGAAAA 2548
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Db    241 ATTAAAGATTTGATTTATTCAAGTATGTGAAAA 273
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RESULT 11
AAS28365
ID AAS28365 standard; DNA; 32188 BP.
XX
AC AAS28365;
XX
DT 07-NOV-2001 (first entry)
XX
DE Genomic sequence #205 encoding for novel human respiratory antigen.
XX
KW Human; respiratory antigen; respiratory disorder; throat disorder;
KW lung disorder; nose disorder; lung cancer; gene therapy; cytostatic;
KW anti allergic; anti asthmatic; anti inflammatory; olfactory;
KW respiratory active; ds.
XX
OS Homo sapiens.
XX
PN WO200155448-A1.
XX
PD 02-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US01333.
XX
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XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-476224/51.
XX
PT Isolated polypeptide for treating, preventing and/ or prognosing
PT disorders related to the respiratory system including respiratory
PT cancers and also for testing and detection e.g. diagnosis -
XX
PS Disclosure; SED ID No 799; 546pp; English.
XX
CC The present invention relates to the isolation of novel human
CC respiratory antigens (AAU17685-AAU17975), and cDNA and genomic
CC sequences encoding for these polypeptides. The sequences of the
CC invention are useful for preventing, treating and/or prognosing
CC disorders related to the respiratory system including throat
CC disorders (e.g. vocal cord paralysis, tonsillitis, and laryngitis),
CC lung disorders e.g. pneumonia, allergic disorders e.g. asthma,
CC pleurisy, cystic fibrosis, emphysema, nose disorders and cancers of
CC the respiratory tissues e.g. lung cancer. The polynucleotide sequences
CC of the invention are useful in gene therapy and antisense therapy.
CC AAS28161-AAS28764 represent genomic sequences encoding for novel
CC human respiratory antigens.
CC Note: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 32188 BP; 8564 A; 6422 C; 6550 G; 10652 T; 0 other;

Query Match 9.4%; Score 241.4; DB 22; Length 32188;
Best Local Similarity 77.6%; Pred. No. 6.1e-50;
Matches 305; Conservative 0; Mismatches 86; Indels 2; Gaps 1;

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Qy   1894 ATCTCAGCTCACTGCAACCTCCATCTCCTGGATTCAAACAATTCTCCTGCCTCAGCCTCC 1953
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Db  10452 ATCTCAGCTCACTGCAATCTCCGCCTCCCGGTTTCAAGTGATTCTCCTGCCTCAGCCCCC 10511

Qy   1954 AGAATAGCTGGGATTACAGGCGTACACCACCATGCCTGGCTAATTTTTTTGT--ATTTTT 2011
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Db  10512 TGAGTAACTAGGATTACAGGTGTCCGCCACCATGCCCGGCTAATTTTTGTGTTAAATTTT 10571

Qy   2012 AGTAGACATGGGGTTTCACCACATTGGCCAGGCTGGTGTCGAACTCCTGACCTCAGGTGA 2071
          |||||| |||||||||||||||||| |||||||||| |||||||||| |||||||||
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Qy   2072 TCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACGGCACCCAGCC 2131
          |||||||||||||||||||||||||||||||||||||||||| |||||||||    ||  |||
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Qy   2132 TAGCTCTCAGATCTCTATTTCATTTTGTGGCTTACCATTCCCTAGCACACTGGCCTTGCC 2191
          ||||| |    |    ||      |       ||  | | | ||  ||| |    |||| |
Db  10692 TAGCTGTTTCTTTCTAATAAGCATGCTCATCTCTCTAATTCCATGCAAAGCCACCTTTTC 10751

Qy   2192 ATCTTGTGGCCGAATAAAAAATAACACCTCTTA 2224
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Db  10752 TTACTCTTGTCACATCATAAAACAAAGCTCTTA 10784
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RESULT 12
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ID AAK70445 standard; DNA; 18949 BP.
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AC AAK70445;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:25257.
XX
KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW cytostatic; gene therapy; vaccine; metastasis; ds.
XX
OS Homo sapiens.
XX
PN WO200157182-A2.
XX
PD 09-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US01354.
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PR 31-JAN-2000; 2000US-0179065.
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PR 16-MAR-2000; 2000US-0189874.
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PR 29-SEP-2000; 2000US-0236369.
PR 29-SEP-2000; 2000US-0236370.
PR 02-OCT-2000; 2000US-0236802.
PR 02-OCT-2000; 2000US-0237037.
PR 02-OCT-2000; 2000US-0237038.
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PR 13-OCT-2000; 2000US-0239935.
PR 13-OCT-2000; 2000US-0239937.
PR 20-OCT-2000; 2000US-0240960.
PR 20-OCT-2000; 2000US-0241221.
PR 20-OCT-2000; 2000US-0241785.
PR 20-OCT-2000; 2000US-0241786.
PR 20-OCT-2000; 2000US-0241787.
PR 20-OCT-2000; 2000US-0241808.
PR 20-OCT-2000; 2000US-0241809.
PR 20-OCT-2000; 2000US-0241826.
PR 01-NOV-2000; 2000US-0244617.
PR 08-NOV-2000; 2000US-0246474.
PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
PR 08-NOV-2000; 2000US-0246477.

PR 08-NOV-2000; 2000US-0246478.
PR 08-NOV-2000; 2000US-0246523.
PR 08-NOV-2000; 2000US-0246524.
PR 08-NOV-2000; 2000US-0246525.
PR 08-NOV-2000; 2000US-0246526.
PR 08-NOV-2000; 2000US-0246527.
PR 08-NOV-2000; 2000US-0246528.
PR 08-NOV-2000; 2000US-0246532.
PR 08-NOV-2000; 2000US-0246609.
PR 08-NOV-2000; 2000US-0246610.
PR 08-NOV-2000; 2000US-0246611.
PR 08-NOV-2000; 2000US-0246613.
PR 17-NOV-2000; 2000US-0249207.
PR 17-NOV-2000; 2000US-0249208.
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PR 17-NOV-2000; 2000US-0249211.
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PR 17-NOV-2000; 2000US-0249216.
PR 17-NOV-2000; 2000US-0249217.
PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
PR 17-NOV-2000; 2000US-0249245.
PR 17-NOV-2000; 2000US-0249264.
PR 17-NOV-2000; 2000US-0249265.
PR 17-NOV-2000; 2000US-0249297.
PR 17-NOV-2000; 2000US-0249299.
PR 17-NOV-2000; 2000US-0249300.
PR 01-DEC-2000; 2000US-0250160.
PR 01-DEC-2000; 2000US-0250391.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and
PT metastasis -
XX
PS Disclosure; SEQ ID NO 25257; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting
CC the nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention.
XX
SQ Sequence 18949 BP; 4570 A; 4853 C; 4987 G; 4539 T; 0 other;

Query Match 9.4%; Score 240.8; DB 22; Length 18949;
Best Local Similarity 87.8%; Pred. No. 6.9e-50;
Matches 274; Conservative 0; Mismatches 37; Indels 1; Gaps 1;

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Qy   1824 CCCCAGCTCTTTTTCTTTTTTTTTGAGACGGAGTCTTGCCCTGTTGCCCATGCTGGAGTG 1883
          |||||  |  ||||| |||||||||||||| |||||||||| |||||||||| |||||||||
Db   1013 CCCCACCCTTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCTGTTGCCCAGGCTGGAGTG 954

Qy   1884 CAATGGCACGATCTCAGCTCACTGCAACCTCCATCTCCTGGATTCAAACAATTCTCCTGC 1943
          |||||||||||||||||||| ||||| |||||| |||| || ||||| ||||||||||||
Db    953 CAATGGCACGATCTCAGCTTACTGCTACCTCCGTCTCCCGGGTTCAAGCAATTCTCCTGC 894

Qy   1944 CTCAGCCTCCAGAATAGCTGGGATTACAGGCGTACACCACCATGCCTGGCTAATTTTTTT 2003
          |||||||||| || ||||||| ||||||||| |   ||||||  |||||||||||||||||
Db    893 CTCAGCCTCCCGAGTAGCTGGAATTACAGGCATGTGCCACCACACCTGGCTAATTTTTTT 834

Qy   2004 GTATTTTTAGTAGACATGGGGTTTCACCACATTGGCCAGGCTGGTGTCGAACTCCTGACC 2063
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Db    833 GTATTTTTAATAGAGACGGGGTTTCGCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACC 774

Qy   2064 TCAGGTGATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTAC-AGGTGTGAGCCACGG 2122
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Db    773 TCAGGCGATCCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACAAGGCGTGAGCCACCG 714

Qy   2123 CACCCAGCCTAG 2134
          | ||  |||| |
Db    713 CGCCGGGCCTGG 702
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RESULT 13
AAZ50359
ID AAZ50359 standard; DNA; 9365 BP.
XX
AC AAZ50359;
XX
DT 18-MAY-2000 (first entry)
XX
DE Human CD39-L4 genomic DNA.
XX
KW CD39-L4; human; apyrase; nucleotide diphosphatase; NDPase;
KW ATP Diphosphohydrolase; ATPDase; adenosine diphosphate; ADP; treatment;
KW platelet aggregation; antithrombotic; thrombosis; myocardial infarction;
KW cerebral ischaemia; angina; vascular graft; extracorporeal circulation;
KW molecular weight marker; nutritional supplement; tumour; prevention;
KW drug targeting; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 72..8642
FT /*tag= a
FT /product= "Human CD39-L4 protein"
FT /note= "Coding region is interrupted with introns"
FT exon 1..288
FT /*tag= b
FT /number= 1
FT intron 289..1280
FT /*tag= c
FT /number= 1
FT exon 1281..1580
FT /*tag= d
FT /number= 2
FT intron 1581..1819
FT /*tag= e
FT /number= 2
FT exon 1820..1855
FT /*tag= f
FT /number= 3
FT intron 1856..2466

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FT                   /*tag= g
FT                   /number= 3
FT   exon            2467..2555
FT                   /*tag= h
FT                   /number= 4
FT   intron          2556..2862
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FT   exon            3889..3950
FT                   /*tag= l
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FT   intron          3951..4893
FT                   /*tag= m
FT                   /number= 6
FT   exon            4894..4995
FT                   /*tag= n
FT                   /number= 7
FT   intron          4996..5846
FT                   /*tag= o
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FT                   /number= 9
FT   exon            8556..9365
FT                   /*tag= t
FT                   /number= 10
XX
PN   WO200004041-A2.
XX
PD   27-JAN-2000.
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PF   16-JUL-1999;   99WO-US16180.
XX
PR   16-JUL-1998;   98US-0118205.
PR   24-JUL-1998;   98US-0122449.
PR   04-FEB-1999;   99US-0244444.
PR   19-MAR-1999;   99US-0273447.
PR   09-JUL-1999;   99US-0350836.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Ford J,  Mulero J;
XX
DR   WPI; 2000-182397/16.
DR   P-PSDB; AAY44849.
XX
PT   New nucleic acid encoding human CD39-like protein, useful for treating
PT   and preventing thrombotic disease -
XX
PS   Example 11; Page 112-119; 125pp; English.
XX
CC   The present sequence is the genomic DNA encoding CD39-L4 protein, an
CC   apyrase and/or nucleotide diphosphatase (NDPase). It is isolated from
CC   the human CITB BAC genomic library. It is a soluble ATP
CC   Diphosphohydrolases (ATPDase) and is involved in the hydrolysis of
CC   adenosine diphosphate (ADP), the agonist that causes platelet
CC   aggregation. CD39-L4 protein has 30% and 80% homology to human and
CC   murine CD39. It has platelet aggregation inhibition and antithrombotic
CC   activity. CD39-L4 is used to treat or prevent thrombosis, myocardial
CC   infarction, cerebral ischaemia and angina. It is also used in vitro, to
CC   maintain vascular grafts or during extracorporeal circulation, to
CC   hydrolyse NDP, as molecular weight markers and as nutritional
CC   supplements. It is used to identify therapeutic agents that bind and
CC   modulate CD39-L4. It is coupled to toxins for targeting drugs to tumours
CC   or other cells that express CD39-L4.
XX
SQ   Sequence 9365 BP; 2439 A; 2005 C; 2191 G; 2632 T; 98 other;

  Query Match             9.4%;  Score 240.2;  DB 21;  Length 9365;
  Best Local Similarity   76.7%;  Pred. No. 7.4e-50;
  Matches  257;  Conservative   34;  Mismatches   43;  Indels    1;  Gaps    1;

Qy   1831 TCTTTTTCTTTTTTTTTGAGACGGAGTCTTGC-CCTGTTGCCCATGCTGGAGTGCAATGG 1889
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Db   7427 TTTATTATTATTTTTTTGAGACGGAGTCTYGCTCTTGTTKCCYRGGCTGGAGTGCARTGG 7486

Qy   1890 CACGATCTCAGCTCACTGCAACCTCCATCTCCTGGATTCAAACAATTCTCCTGCCTCAGC 1949
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Db   7487 CRYGATCWCRGCTCACTGCARCCTYCRCCTCCTGGGTTCAAGCGATTCTYCTGCCTCAGC 7546

Qy   1950 CTCCAGAATAGCTGGGATTACAGGCGTACACCACCATGCCTGGCTAATTTTTTTGTATTT 2009
           |||| :| ||||||||||||||||:: | |||||| |||:|||||||||||||||||||
Db   7547 CTCCCRAGTAGCTGGGATTACAGGCRYGCGCCACCACGCCYGGCTAATTTTTTTGTATTT 7606

Qy   2010 TTAGTAGACATGGGGTTTCACCACATTGGCCAGGCTGGTGTCGAACTCCTGACCTCAGGT 2069
           |||||||| | |||||||||||  |||||||||||::| |::||||:||||:|||||||
Db   7607 TTAGTAGAGACGGGGTTTCACCATGTTGGCCAGGCTRKTCTYRAACTYCTGAYCTCAGGT 7666

Qy   2070 GATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACGGCACCCAG 2129
           |||||||||:||| :|||||||||||||||:|:||||:|||::|||||||  | ||::|
Db   7667 GATCCACCCRCCTCRGCCTCCCAAAGTGCTRGRATTAYAGGYRTGAGCCACCACKCCYRG 7726

Qy   2130 CCTAGCTCTCAGATCTCTATTTCATTTTGTGGCTT 2164
           |||   |      : ||| |||  || : |   ||
Db   7727 CCTTTTTTGKTCGKTTCTTTTTTTTTCHTTTTTTT 7761


RESULT 14
AAF63405
ID   AAF63405 standard; DNA; 9365 BP.
XX
AC   AAF63405;
XX
DT   14-MAY-2001  (first entry)
XX
DE   Human CD39 like protein CD39-L4 partial DNA sequence.
XX
KW   Human CD39-like protein; apyrase; NDPase; platelet function inhibitor;
KW   myocardial infarction; cerebral ischaemia; angina; arterial thrombosis;
KW   cerebral artery thrombosis; platelet aggregation; inflammation;
KW   apoptosis; autoimmune disorder; neurological disorder;
KW   Alzheimer's disease; Parkinson's disease; cancer; CD39-L4; ds.
XX
OS   Homo sapiens.
XX
PN   WO200110205-A1.
XX
PD   15-FEB-2001.
XX
PF   09-AUG-2000; 2000WO-US21790.
XX
PR   09-AUG-1999;   99US-0370265.
PR   11-JAN-2000; 2000US-0481238.
PR   25-APR-2000; 2000US-0557800.
PR   26-MAY-2000; 2000US-0583231.
PR   30-JUN-2000; 2000US-0608285.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Ford J,  Mulero JJ,  Yeung G;
XX
```

```
DR   WPI; 2001-147489/15.
XX
PT   Polynucleotides encoding human CD39-like polypeptides, with apyrase
PT   and/or NDPase activity, which are useful in the treatment of
PT   pathological conditions caused by thrombosis (e.g. myocardial
PT   infarction) and inflammatory disorders -
XX
PS   Example 11; Page 148-154; 203pp; English.
XX
CC   This invention relates to polynucleotides encoding human CD39-like
CC   polypeptides with apyrase and/or NDPase activity. The polypeptides having
CC   ATPDase, including NDPase, activity are useful for inhibiting platelet
CC   function and can therefore be used in the prophylaxis or treatment of
CC   pathological conditions caused by or involving thrombosis or excessive
CC   coagulation or excessive platelet aggregation, such as myocardial
CC   infarction, cerebral ischaemia, angina, arterial thrombosis, cerebral
CC   artery thrombosis or intracardiac thrombosis, and conditions associated
CC   with venous thrombosis. CD39-L4 and CD39-L2 polypeptides are useful in
CC   modulating disease states (including platelet aggregation, inflammation
CC   and apoptosis) associated with ADP or other purinergic signalling by
CC   reducing the levels of NDPs. The polypeptides are also useful for
CC   prophylaxis or treatment of inflammation related disorders, such as
CC   disorders involving sepsis or systemic inflammatory response syndrome or
CC   SIRS (and associated conditions such as fever, tachycardia, tachypnea,
CC   cytokine overstimulation); autoimmune disorders such as thrombosis,
CC   atherosclerosis, acute pancreatitis, dermatitis, including psoriasis,
CC   cirrhosis, reperfusion injury, asthma, multiple sclerosis, arthritis;
CC   neurological disorders including neurodegenerative diseases, epilepsy,
CC   depression, Alzheimer's disease, Parkinson's disease, Huntington's
CC   disease, and amyotrophic lateral sclerosis; and cancer. The present
CC   sequence represents a CD39 like protein CD39-L4 partial DNA sequence.
XX
SQ   Sequence 9365 BP; 2439 A; 2005 C; 2191 G; 2632 T; 98 other;

  Query Match             9.4%;  Score 240.2;  DB 22;  Length 9365;
  Best Local Similarity   76.7%;  Pred. No. 7.4e-50;
  Matches  257;  Conservative   34;  Mismatches   43;  Indels    1;  Gaps    1;

Qy    1831 TCTTTTTCTTTTTTTTTGAGACGGAGTCTTGC-CCTGTTGCCCATGCTGGAGTGCAATGG 1889
           | | ||  | ||||||||||||||||||||:|| | ||||:||:: ||||||||||:|||
Db    7427 TTTATTATTATTTTTTTGAGACGGAGTCTYGCTCTTGTTKCCYRGGCTGGAGTGCARTGG 7486

Qy    1890 CACGATCTCAGCTCACTGCAACCTCCATCTCCTGGATTCAAACAATTCTCCTGCCTCAGC 1949
           |::||||:|:|||||||||:|||:|: ||||||| ||||| | |||||:|||||||||
Db    7487 CRYGATCWCRGCTCACTGCARCCTYCRCCTCCTGGGTTCAAGCGATTCTYCTGCCTCAGC 7546

Qy    1950 CTCCAGAATAGCTGGGATTACAGGCGTACACCACCATGCCTGGCTAATTTTTTTGTATTT 2009
           |||| :| ||||||||||||||||:: | |||||| |||:||||||||||||||||||
Db    7547 CTCCCRAGTAGCTGGGATTACAGGCRYGCGCCACCACGCCYGGCTAATTTTTTTGTATTT 7606

Qy    2010 TTAGTAGACATGGGGTTTCACCACATTGGCCAGGCTGGTGTCGAACTCCTGACCTCAGGT 2069
           |||||||| | |||||||||||  ||||||||||::| |::||||:||||:|||||||
Db    7607 TTAGTAGAGACGGGGTTTCACCATGTTGGCCAGGCTRKTCTYRAACTYCTGAYCTCAGGT 7666

Qy    2070 GATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACGGCACCCAG 2129
           |||||||||:||| :|||||||||||||||:|:||||:|||::|||||||   | ||::|
Db    7667 GATCCACCCRCCTCRGCCTCCCAAAGTGCTRGRATTAYAGGYRTGAGCCACCACKCCYRG 7726

Qy    2130 CCTAGCTCTCAGATCTCTATTTCATTTTGTGGCTT 2164
           |||   |      : ||| |||  || : |   ||
Db    7727 CCTTTTTTGKTCGKTTCTTTTTTTTTCHTTTTTT 7761


RESULT 15
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ID   AAF63406 standard; DNA; 14747 BP.
XX
AC   AAF63406;
XX
DT   14-MAY-2001  (first entry)
XX
DE   Human CD39 like protein CD39-L4 genomic DNA sequence.
XX
KW   Human CD39-like protein; apyrase; NDPase; platelet function inhibitor;
KW   myocardial infarction; cerebral ischaemia; angina; arterial thrombosis;
KW   cerebral artery thrombosis; platelet aggregation; inflammation;
KW   apoptosis; autoimmune disorder; neurological disorder;
KW   Alzheimer's disease; Parkinson's disease; cancer; CD39-L4; ds.
XX
OS   Homo sapiens.
XX
PN   WO200110205-A1.
XX
PD   15-FEB-2001.
XX
PF   09-AUG-2000; 2000WO-US21790.
XX
PR   09-AUG-1999;   99US-0370265.
PR   11-JAN-2000; 2000US-0481238.
PR   25-APR-2000; 2000US-0557800.
PR   26-MAY-2000; 2000US-0583231.
PR   30-JUN-2000; 2000US-0608285.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Ford J,  Mulero JJ,  Yeung G;
XX
DR   WPI; 2001-147489/15.
XX
PT   Polynucleotides encoding human CD39-like polypeptides, with apyrase
PT   and/or NDPase activity, which are useful in the treatment of
PT   pathological conditions caused by thrombosis (e.g. myocardial
PT   infarction) and inflammatory disorders -
XX
PS   Example 11; Page 168-176; 203pp; English.
XX
CC   This invention relates to polynucleotides encoding human CD39-like
CC   polypeptides with apyrase and/or NDPase activity. The polypeptides having
CC   ATPDase, including NDPase, activity are useful for inhibiting platelet
CC   function and can therefore be used in the prophylaxis or treatment of
CC   pathological conditions caused by or involving thrombosis or excessive
CC   coagulation or excessive platelet aggregation, such as myocardial
CC   infarction, cerebral ischaemia, angina, arterial thrombosis, cerebral
CC   artery thrombosis or intracardiac thrombosis, and conditions associated
CC   with venous thrombosis. CD39-L4 and CD39-L2 polypeptides are useful in
CC   modulating disease states (including platelet aggregation, inflammation
CC   and apoptosis) associated with ADP or other purinergic signalling by
CC   reducing the levels of NDPs. The polypeptides are also useful for
CC   prophylaxis or treatment of inflammation related disorders, such as
CC   disorders involving sepsis or systemic inflammatory response syndrome or
CC   SIRS (and associated conditions such as fever, tachycardia, tachypnea,
CC   cytokine overstimulation); autoimmune disorders such as thrombosis,
CC   atherosclerosis, acute pancreatitis, dermatitis, including psoriasis,
CC   cirrhosis, reperfusion injury, asthma, multiple sclerosis, arthritis;
CC   neurological disorders including neurodegenerative diseases, epilepsy,
CC   depression, Alzheimer's disease, Parkinson's disease, Huntington's
CC   disease, and amyotrophic lateral sclerosis; and cancer. The present
CC   sequence represents the CD39 like protein CD39-L4 genomic DNA sequence.
XX
SQ   Sequence 14747 BP; 3821 A; 3235 C; 3349 G; 4294 T; 48 other;

  Query Match             9.4%;  Score 240.2;  DB 22;  Length 14747;
  Best Local Similarity   76.7%;  Pred. No. 8.8e-50;
  Matches  257;  Conservative   34;  Mismatches   43;  Indels    1;  Gaps    1;

Qy    1831 TCTTTTTCTTTTTTTTTGAGACGGAGTCTTGC-CCTGTTGCCCATGCTGGAGTGCAATGG 1889
           | | ||  | ||||||||||||||||||||:|| | ||||:||:: ||||||||||:|||
Db   10787 TTTATTATTATTTTTTTGAGACGGAGTCTYGCTCTTGTTKCCYRGGCTGGAGTGCARTGG 10846

Qy    1890 CACGATCTCAGCTCACTGCAACCTCCATCTCCTGGATTCAAACAATTCTCCTGCCTCAGC 1949
           |::||||:|:|||||||||:|||:|: ||||||| ||||| | |||||:|||||||||
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Qy    1950 CTCCAGAATAGCTGGGATTACAGGCGTACACCACCATGCCTGGCTAATTTTTTTGTATTT 2009
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Qy    2010 TTAGTAGACATGGGGTTTCACCACATTGGCCAGGCTGGTGTCGAACTCCTGACCTCAGGT 2069
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Db   10967 TTAGTAGAGACGGGGTTTCACCATGTTGGCCAGGCTRKTCTYRAACTYCTGAYCTCAGGT 11026

Qy    2070 GATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACGGCACCCAG 2129
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Db   11027 GATCCACCCRCCTCRGCCTCCCAAAGTGCTRGRATTAYAGGYRTGAGCCACCACKCCYRG 11086

Qy    2130 CCTAGCTCTCAGATCTCTATTTCATTTTGTGGCTT 2164
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Job time : 911.101 secs